WHAT IS CLAIMED IS

1. Site-directed molecular antagonists to SP22 or to functional fragments thereof.

2. The site-directed molecular antagonists to SP22 according to claim 1 which are antibodies.

3. A method for predicting fertility of a male animal comprising:

assaying sperm from said male animal for levels of SP22 or functional fragments thereof; and

relating the amount of SP22 or functional fragments thereof in the sperm to the animal's fertility.

4. The method according to claim 3 wherein the male animal is a human.

5. The method according to claim 3 wherein the male animal is selected from the group consisting of domestic animals and exotic animals.

6. A method for screening for environmental insults to male reproductive competence comprising:

assaying sperm for levels of SP22 or functional fragments thereof, and

relating the amount of SP22 or functional fragments thereof in the sperm to the animal's fertility.

7. A method for temporarily rendering an animal sterile comprising administering to said animal an effective amount of a site-directed molecular antagonist to SP22.

8. The method according to claim 7 wherein the animal is

a human.

9. A vaccine for rendering an animal infertile comprising an effective amount of at least one functional fragment of SP22.

10. A method for enhancing the fertility of a male animal comprising adding to a semen sample or to a subset of sperm an effective amount of SP22 or a functional fragment thereof.

11. The method according to claim 10 wherein the male animal is a human.

12. Functional fragments of SP22.